



The Implementation Of Risk Management In The Ministry Of Energy And Mineral Resources' New Electricity Connection Assistance Program

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ABSTRACT

One of the government's programs aimed at improving access to electricity for the community to achieve a national electrification ratio of 100%, conducted by the Ministry of Energy and Mineral Resources, is the New Electricity Connection Assistance Program (NECAP). NECAP is a government initiative to equalize access to electricity throughout the archipelago to enhance electrification ratios and provide electricity to low-income households. NECAP covers the installation of electrical power, installation costs, Certification of Operation Eligibility (SLO) costs, new connection costs to PT PLN (Persero), and the initial purchase of electricity tokens. Risk management is required to identify and manage risks in order to achieve these objectives. The aim of this research is to provide an overview of the implementation of risk management in the NECAP program. The method used in this research is interviews with individuals directly involved in the NECAP program. The results of this research include a list of risks and how risk management is implemented in the NECAP program.

INTRODUCTION

In Law No. 30 of 2009 on Electricity, the development of the electricity sector aims to ensure the availability of a sufficient quantity of electricity, with good quality and reasonable prices, to enhance the welfare and prosperity of the people fairly and equitably, as well as to realize sustainable development.

In the electricity sector, the Ministry of Energy and Mineral Resources, specifically the Directorate General of Electricity, is guided by Article 33 (2) of the 1945 Constitution of the Republic of Indonesia, which states that the provision of electricity is controlled by the state and utilized for the welfare of the people, a task carried out by the Directorate General of Electricity. This is accomplished by setting policies, regulations, and supervising the provision of electricity

services by PT PLN (Persero), a state-owned enterprise responsible for providing electricity to the public.

The Electrification Ratio (ER) is the ratio of the number of household customers with access to electricity to the total number of households. Electrification Ratio refers to the percentage of the population or area with access to electricity. It is also used as a measure of electricity infrastructure development in an area. The higher the electrification ratio, the greater the level of public access to electricity, which can have an impact on the quality of life, social development, and economic growth.

To improve access to electricity for the population and achieve the national electrification ratio target of 100% as a National Strategic Target, the Ministry of Energy and Mineral Resources, through the Directorate General of Electricity, has implemented the New Electricity Connection Assistance Program (NECAP).

The NECAP program is one way to increase the national electrification ratio through on-grid means. It is a government effort to distribute access to electricity throughout the country, thus improving electrification ratios and providing electricity to low-income households.

In 2022, the program was successfully implemented for 80,183 households in 22 provinces that received NECAP assistance. For 2023, the plan is to implement the program for 83,000 households in 32 recipient provinces. This program is carried out through an assignment to PT PLN (Persero), which utilizes the State Revenue and Expenditure Budget.

Internal Control Systems of the Government (Sistem Pengendalian Intern Pemerintah or SPIP) is regulated by Government Regulation No. 60 of 2008. To achieve efficient, effective, accountable, and transparent financial management of the state, control over government operations is necessary. The SPIP consists of five elements: control environment, risk assessment, control activities, information and communication, and monitoring.

Risks in the New Electricity Connection Assistance Program (NECAP) have not been identified, potentially leading to the non-achievement of electrification ratios and improper installation targets. Therefore, research is needed to identify the specific risks associated with the NECAP program.

LITERATURE REVIEW

Internal Control

In Government Regulation No. 60 of 2008 concerning the Government Internal Control System, the Internal Control System is defined as an integral process involving actions and activities carried out periodically by leaders and all employees to provide adequate assurance regarding the achievement of organizational objectives through effective and efficient activities, such as safeguarding state assets, financial reporting, and compliance with applicable laws and regulations. According to the Committee of Sponsoring Organizations of the Treadway Commission (COSO), internal control has five components: a control environment, risk assessment, control activities, information and communication, and monitoring.

In 1992, the Internal Control Integrated Framework (ICIF) was published by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). According to the Committee of Sponsoring Organizations of the Treadway Commission (COSO), the definition of internal control is as follows:

"Internal control is a process, affected by the entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories:

- a. Effectiveness and efficiency of operations
- b. Reliability of financial reporting
- c. Compliance with applicable laws and regulations"

According to COSO, there are five components of internal control:

- a. Control Environment (environment of control)
- b. Risk Assessment (risk assessment)
- c. Control Activities (control activities)
- d. Information and Communication (information and communication)
- e. Monitoring (monitoring)

Risk Management

Risk management is the process of managing risks. The steps in the risk management process, according to Hinsa Siahaan, include identifying risks, evaluating risks, selecting risk management techniques, and implementing and reviewing these techniques. The International Organization for Standardization (ISO) released a new standard in February 2018 that replaces ISO 31000:2009, titled "Risk Management - Principles and Guidelines." This standard is used as a reference for managing risk in all organizations, whether public, private, corporate, or governmental. The risk management process, according to ISO 31000:2018, involves: 1) identifying risks, 2) evaluating risks, 3) selecting risk management techniques, and 4) implementing and reviewing these techniques.



Source: Greg Hutchins, ISO 31000:2018 Enterprise Risk Management

The risk management process according to ISO 31000:2018 is as follows:

1. Establishing Context: The first step is to establish context. The purpose of this step is to align the risk management process, allowing for effective risk assessment and appropriate risk treatment. This stage defines the process scope and understands both external and internal contexts.
2. Risk Assessment: Risk assessment consists of the risk identification process, which involves discovering, recognizing, and describing risks that can help the organization achieve its objectives. Risk analysis is the examination of risks and their impacts, followed by risk evaluation, which compares the risk analysis with established risk criteria to determine risk mitigation or treatment.
3. Risk Treatment: Choosing the appropriate risk treatment options based on the benefits and their relationship to achieving objectives. There are four risk treatment options: risk reduction (mitigation), risk acceptance, risk avoidance, and risk sharing/transfer.

METHODS

In conducting this research, the researcher employed a qualitative approach. The indirect data collection method used by the researcher was interviews. Qualitative research involves collecting data in a natural setting, using it as a key instrument, sampling sources, employing

triangulation data collection techniques, conducting inductive/qualitative data analysis, and focusing on the meaning of the qualitative research results (Anggito, 2018).

The data obtained and examined in this research is qualitative data. Qualitative data can consist of interview results, document reviews, and questionnaires related to the implementation of New Electricity Installation Assistance. The data to be used in this research includes primary and secondary data.

RESULTS

Context Establishment

The vision, mission, and objectives of the Ministry of Energy and Mineral Resources and the Directorate General of Electricity are outlined in Ministerial Regulation No. 16 of 2020 concerning the Strategic Plan of the Ministry of Energy and Mineral Resources for the period 2020-2024, dated September 25, 2020, and Ministerial Decree (Kepmen) No. 229 K/09/MEM/2020 concerning Key Performance Indicators within the Ministry of Energy and Mineral Resources, established on November 16, 2020.

The New Electricity Connection Assistance Program (NECAP) is one of the programs under the Ministry of Energy and Mineral Resources. This program is funded through the State Revenue and Expenditure Budget allocated to the Directorate General of Electricity.

NECAP is a program aimed at achieving the electrification ratio (ER), which is an index of the strategic objectives of the Ministry of Energy and Mineral Resources in the form of the National Electricity Resilience Index. The Electrification Ratio (ER) is the comparison of the number of household customers with an electricity source to the total number of households. ER refers to the percentage of the population or geographical areas with access to electricity.

Risk Assessment

Risk assessment for the New Electricity Connection Assistance Program (NECAP) consists of three stages: risk identification, risk analysis, and risk evaluation.

Risk Identification:

Risk identification is carried out through interviews and document reviews. In the risk identification process, the NECAP program is divided into three phases: planning, implementation, and monitoring. This study successfully identified 14 risks in the New Electricity Connection Assistance Program (NECAP), which are presented in the risk list. Three risks were identified in the planning phase, nine risks were identified during the implementation phase of NECAP, and two risks were identified in the monitoring phase of the program.

Activity	Risk Code	Risk Description	Impact
Planning	R1	Error in prospective recipient data	Will re-survey, re-request data
	R2	Delay in proposing data on potential recipients	The determination of prospective recipients is not according to schedule
	R3	Low KAK, RAB and Self Estimated Price (HPS).	If the price set is low then the auction cannot be held.
Implementation	R4	Business Entities carrying out BPBL installations do not have permits	SLO will be late, implementation will not be on time
	R5	Poor material quality	The tool will quickly become damaged and cannot be used for a long time
	R6	Prospective recipients do not match the criteria	State losses, re-survey of potential recipients, change of SK of potential recipients
	R7	Incomplete material quantity	State loss
	R8	Payment not on time/late to	Low budget realization

		PT. PLN	
	R9	Failed auction	A re-auction was held, the implementation time was behind schedule
	R10	The winner of the auction won the achievement	Work not completed or late, installation not in accordance with specifications/SOP
	R11	The quota of potential recipients does not match the planning	Lack of material or excess material
	R12	Implementation not on time	Increasing the electrification ratio is hampered,
Pengawasan	R13	Supervision is not optimal	Work does not meet specifications
	R14	Improper sampling	Sampling does not reflect the entire project, BPK and IG findings

Risk Analysis

Risk analysis is determined through interviews and questionnaires. In the case of the New Electricity Connection Assistance Program (NECAP) under the Ministry of Energy and Mineral Resources, risk analysis is conducted to estimate the magnitude of impact and the likelihood of risk occurrence to determine the risk levels.

The analysis of the likelihood and frequency of risk occurrence reveals that there are five risks with a low likelihood (rated at level 2), four risks with a moderate likelihood (rated at level 3), and five risks with a high likelihood (rated at level 4).

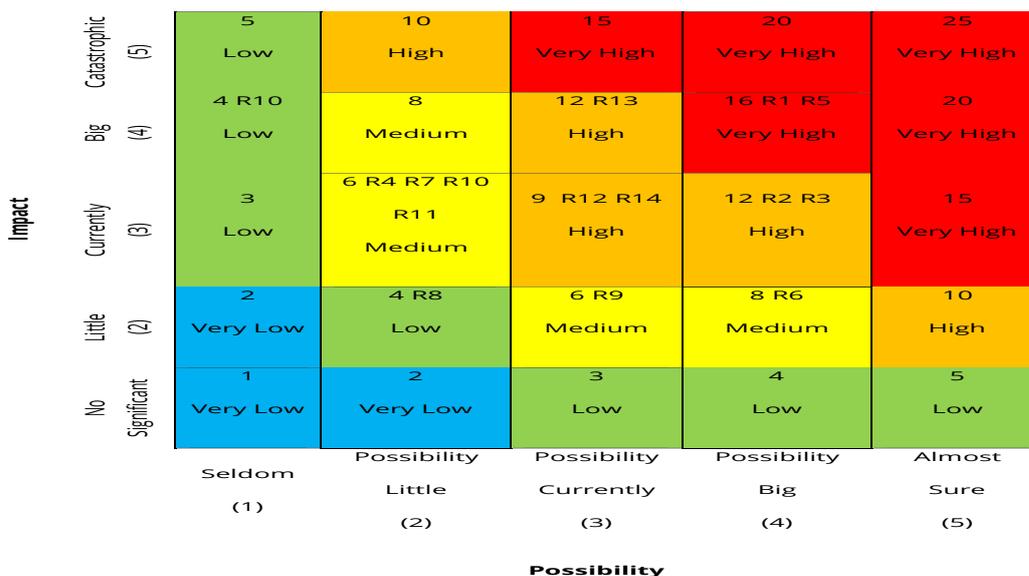
In terms of the impact analysis, it is observed that three risks have a low impact (rated at level 2), eight risks in the NECAP have a moderate impact (rated at level 3), and three risks in the NECAP have a high impact (rated at level 4).

Risk Code	Potential Risks	Possibility Level (likelihood)	Impact Level (Impact)
A	Planning Stage		
R1	Error in prospective recipient data	4	4
R2	Delay in proposing data on potential recipients	4	3
R3	Errors in preparing KAK, RAB and Self Estimated Price (HPS).	4	3
B	Implementation Stage		
R4	Bangsang/Provider who carries out the BPBL installation does not have a permit	2	3
R5	Poor material quality	4	4
R6	Prospective recipients do not match the criteria	4	2
R7	Incomplete material quantity	2	3
R8	Payment not on time/late to PT. PLN	2	2
R9	Failed auction	3	2
R10	The winner of the auction won the achievement	2	3
R11	The quota of potential recipients does not match the planning	2	3
R12	Implementation not on time	3	3
C	Supervision		
R13	Lack of human resources in supervision	3	4
R14	Improper sampling	3	3

Risk Evaluation

Risk evaluation is the stage of prioritizing and mapping risks. The results of the risk measurement evaluation for the New Electricity Connection Assistance Program (NECAP) indicate that there are 2 (two) risks at level 16 with a status of very high risk, 5 (five) risks at levels

9-12 with a high risk status, 6 risks at levels 6-8 with a moderate risk status, and 2 risks at level 4 with a low risk status. Below is the risk evaluation map.



Kode Risiko	Risiko yang Teridentifikasi	Nilai	Level Risiko
R1	Error in prospective recipient data	16	Very high
R5	Poor quality of materials	16	Very high
R2	Delay in proposing data on potential recipients	12	High
R3	Errors in preparing KAK, RAB and Self Estimated Price (HPS).	12	High
R13	Lack of human resources in supervision	12	High
R12	The implementation was not on time	9	High
R14	Improper sampling	9	High
R6	Candidate recipients do not match the criteria	8	Medium
R4	Bangsang/Provider who carries out the BPBL installation does not have a permit	6	Medium
R7	Incomplete quantity of material	6	Medium
R9	Failed Auction	6	Medium
R10	The winner of the auction won the achievement	6	Medium
R11	The quota of potential recipients does not match the planning	6	Medium
R8	payment not on time/late to PT. PLN	4	Low

DISCUSSION

Risk Treatment

- a. For risk R1, data errors of prospective recipients, risk R2, delays in the submission of prospective recipient data, and risk R11, discrepancies in the recipient quota, can be mitigated by coordinating with local governments before the year commences. Currently, the Directorate General of Electricity and PT.PLN (Persero) coordinate with local governments after the survey and the release of prospective recipient data. However, this coordination can be done before the data is received, making it a backup data source.
- b. To mitigate risk R3, errors in the preparation of Work Plans (KAK), Bill of Quantities (RAB), and Estimated Budgets (HPS), and risk R9, the failure of auctions, can be accomplished through price determination through sampling in the marketplace and coordination with PT. PLN Persero in preparing the RAB and HPS.
- c. To mitigate risk R4, installations carried out by contractors/providers without proper permits can be addressed by pulling contractor/provider data during the auction evaluation process, allowing for prior verification through the Directorate General of Electricity's system.

- d. To mitigate risk R5, poor material quality, and R7, insufficient material quantities, enhance supervision. PT.PLN conducts equipment inspections for the winners of the auction for the installation of New Electricity Connections and holds kick-off meetings with business entities/providers responsible for installation.
- e. To mitigate risk R6, recipients not meeting the criteria, validation of data can be conducted by the Directorate General of Electricity. The Directorate General of Electricity continues to validate data and monitors the progress during the installation process.
- f. To mitigate risk R8, improper or late payments to PT.PLN (Persero), hold meetings to review progress in New Electricity Connection installations. Payment risks impact the budget realization at the Directorate General of Electricity.
- g. To mitigate risk R10, winners not meeting their performance standards, perform background checks when selecting auction winners and draft contracts in clear, non-interpretable language. Payments should align with project progress.
- h. To mitigate risk R12, untimely implementation, establish Standard Operating Procedures (SOP) related to the issuance of SLO standards and prioritize materials. Materials imported from abroad are managed by PT. PLN (Persero) for areas lacking materials.
- i. To mitigate risk R13, lack of human resources in supervision, consider self-management type I. The Directorate General of Electricity can collaborate with other units within the same Ministry to conduct field supervision.
- j. To mitigate risk R14, improper sampling, conduct evaluation of supervision by coordinating with the Inspectorate General to determine an appropriate sampling method. Develop guidelines for calculating a representative sampling method that reflects the overall progress of New Electricity Connection installations.

CONCLUSION

Based on the results of this research, risk management has been conducted for the New Electricity Connection Assistance Program. The risk management process includes context establishment, risk assessment (risk identification, risk analysis, and risk evaluation), and risk treatment. Risk treatment through risk mitigation has been performed for 14 identified risks. Among these, 2 risks have a very high risk level (unacceptable), 7 risks have a high risk level (issue), 4 risks have a moderate risk level (supplementary), and 1 risk has a low risk level (acceptable).

Suggestion

1. Enhance Risk Mitigation: As a follow-up action, it is recommended to strengthen risk mitigation efforts for the two risks with very high risk levels (unacceptable). Reevaluate existing mitigation strategies and consider whether additional measures are needed to reduce these risks.
2. Continuous Monitoring: Risk management is an ongoing process. It is advisable to maintain continuous monitoring of the identified risks. Periodically assess risks and adjust mitigation actions as necessary.
3. Collaboration: Strengthen collaboration and cooperation among all stakeholders involved in this program. By sharing information and understanding risks, you can minimize potential negative impacts.
4. Education and Training: Providing training and education to the team involved in program implementation about risk management is essential. This will help them be more effective in identifying, assessing, and managing risks in the future.

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